

Baverstock Welding Engineering Consultancy Ltd

Welding engineering solutions for your business

Tel: 07941 368894

HELP DOCUMENT WELDER TESTS - The difference between the WELDING and WELDER

WELDING - this is the test for the **parent materials**, the parts are welded by a welder and they will get a qualification (assuming it passes) after the test <u>BUT</u> the range will be different and more restrictive.

- ✓ ASME IX sections
 - QW-253 (SMAW), QW-254 (SAW), QW-255 (GMAW & FCAW), QW-256 (GTAW), QW-257 (PAW)
- ✓ BS EN ISO 15614 series 1 to 14 depending upon material, process etc.

WELDER - This tests the person and their hand skills involved in welding and is governed by these standards

- ✓ ASME IX
 - o QW-353 (SMAW), QW-354 (SAW), QW-355 (GMAW), QW-356 (GTAW), QW-357 (PAW)
- ✓ BS EN ISO 9606 series
 - o BS EN ISO 9606-1 (Steels)
 - o BS EN ISO 9606-2 (Aluminium)
 - o BS EN ISO 9606-4 (Nickel)

EN WELDER qualification

The WELDER "shall" (section 6.2 of ISO 9606-1) follow a WPS or pWPS document, NOT a (W)PQR. This (the WPS) should be referenced on their qualification, BUT the range from the WPS WILL NOT BE THE SAME as the range for the welder. The welders range will generally be greater than the WPQR/WPS range because it is a test of their hand skills not the parent material.

Note: If a welder welds a butt weld they will NOT be qualified for fillet welds UNLESS they weld a SUPPLEMENTARY FILLET WELD TEST. This test is defined from the standard as 'The test piece shall be at least 10 mm thick, or the thickness of the butt weld test piece if the thickness is less, and completed using a single layer in the PB position. 'The fillet weld can then be fracture or Macro tested to demonstrate the welder can weld the fillet weld correctly, they will then get Butt and Fillet for their range on their certificate.

ASME WELDER qualification

The WELDER "shall" (section QW-301.2) follow a WPS document, NOT a PQR. This (the WPS) should be referenced on their qualification, BUT the range from the WPS WILL NOT BE THE SAME as the range for the welder. The welders range will generally be greater than the PQR/WPS range because it is a test of their hand skills not the parent material.

Welding Test Piece Sizes Used

Welding (BS EN ISO 15614-1) Minimum sizes		Welder (BS EN ISO 9606-1) Minimum sizes	
Plate Butt weld	150mm × 350mm	Plate Butt weld	125mm × 200mm plus the thickness
(each plate)	plus the thickness	(each plate)	
Pipe Butt weld	Diameter x 150mm long	Pipe Butt weld	Diameter and 125mm long plus
(each pipe)	plus thickness	(each pipe)	thickness
Fillet weld	150mm × 350mm plus the	Fillet weld	125mm × 200mm plus the thickness
(each plate)	thickness	(each plate)	125mm x 200mm plus the thickness
Branch weld (each pipe)	Diameters of both pipes minimum of 150mm from the joint all round.		Pipe - Diameter x 125mm long plus
		Fillet weld on	thickness
		pipe to plate	The plate must be ≥50mm or more all-
			round from the outside diameter used.

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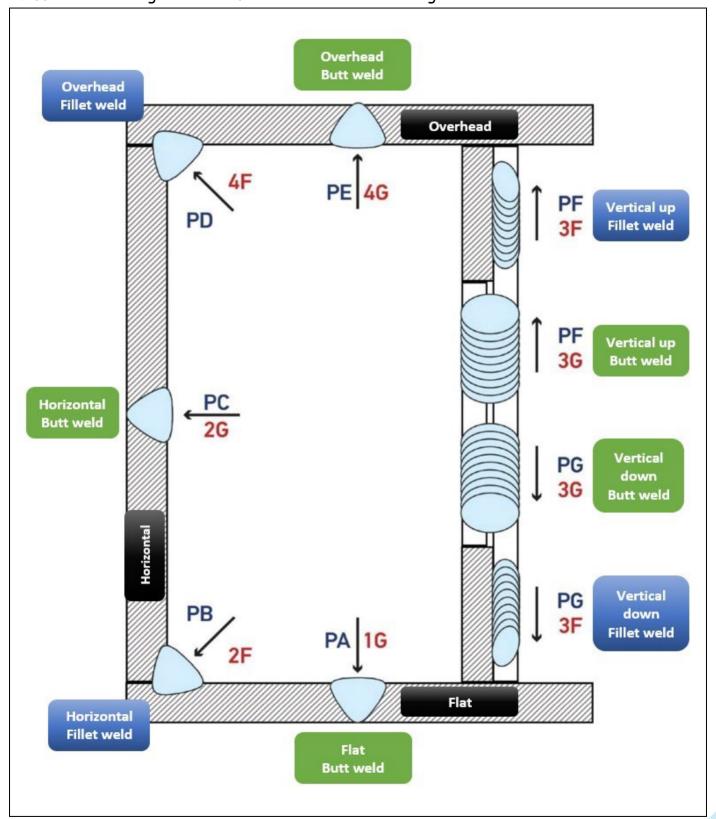


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Different Welding Positions for the welder and welding



E-mail: mike@weldingconsultancy.co.uk

Telephone: +44 (0) 7941 368 894

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